

A COMPARISON OF END-OF COURSE SCORES IN A HEALTH SCIENCES CLASSROOM IMPROVEMENT IN TEST SCORES FOR MEDICAL TERMINOLOGY

Introduction

The purpose of this study is to determine if there is a difference between means of mid-term test scores as a result of ten minutes of medical terminology instruction daily in a Health Science Class.

Background and Rationale

Students in a Health Sciences class receive four days of medical terminology at the beginning of the school year. The medical terminology is not covered again during the school year. End-of Course scores derived from each Health Sciences Class are provided to the teacher following the end of the school year. Students assigned a score of "not proficient" on the End-of-Course test indicate that medical terminology is an area of need. In addition outcomes based on these post assessment findings from school year 2010-2012 are clear that attention to medical terminology is important to success on the End-of-Grade test. This is a study involving two classes of Health Sciences students in the spring semester at Southern Lee High School in Lee County of which the experimental group receives ten minutes of additional instruction time regarding medical terminology.

Definitions

Mid-term-A mid-term is a teacher created and administered test given to all students at the mid-point of a semester.

Proficiency-The competency or proficiency score is determined as a score of 77 or higher for state tests and score of 70 or higher for third-party assessments. Students will be determined as either Proficient or Not Proficient, based on their score test results. A score of 93 is accepted for articulation purposes.

School Year-The school year is defined as a public school year from August 2012 to June 2013. This includes 180 days.

Semester-A semester is defined as 90 days or one half of a school year.

Methodology

This participatory action research proposal is a quasi-experimental study to determine if ten minutes of instruction daily regarding medical terminology in a Health Sciences Class will improve End-of-Grade test score as compared to a class without daily instruction. This type of research design will delineate differences in "End of Grade Test" scores between the groups. The experimental group in a Health Science Class will receive four days of medical terminology at the beginning of the school year and ten minutes of instruction regarding medical terminology on a daily basis throughout the school year as compared to the control group without daily instruction but receiving four days of instruction in medical terminology at the beginning of the school year. This quantitative study. This researcher will utilize a simple t-test to determine if there is a difference between groups.

The study will be conducted at Southern Lee High School in Lee County of North Carolina in a Health Science Class. This is a sample of convenience to assess the difference between groups on End-of-Grade test score. The instrument is a standardized tool intended to assess participant competency in Health Sciences. The North Carolina End-of-Grade tests are designed to measure student performance on the goals, objectives, and grade-level competencies specified in the North Carolina Standard Course of Study.

Design

This participatory action research proposal intends to determine if ten minutes of instruction daily regarding medical terminology in a Health Sciences Class will improve End-of-Grade test score as compared to a class without daily instruction. This is a posttest only design.

Research Sample

For the purpose of this study a Health Science Class at Southern Lee High School located in Lee County of North Carolina in the spring semester will serve as the focus of this investigation. A second Health Science class within the same semester at will serve as the control. The intervention is an additional ten minutes of instruction on a daily basis specific to medical terminology throughout the school year as compared to the control group without daily instruction

The school is located in a suburban community of Raleigh. The student ethnicity is comprised of 49.5% Caucasian, 22.7% African-American, 25.3% Hispanic, 0.3% Asian, 0.9% American Indian, and 1.3% of two or more races combined. The male to female ratio is almost one to one; with 49.91% males and 50.09% females. Within the school population of 1102, there are 510 students for free lunch and 71 students for reduced lunch. This is 52.7% of the students are eligible for free and reduced lunch.

All students in the class will be required to participate as State of North Carolina mandates End-of-Course testing. All of the student participants are in a regular education classroom. There are no none English speaking students enrolled in the class.

The school requires all teachers to administer a mid-term exam. The mid-term is mandatory but participation in the research is optional and voluntary.

Data analysis

The End-Of-Course Health Science test will be analyzed by North Carolina Department of Public Instruction, Accountability Services Division. This researcher will be presented with the results for individuals in both the control and experimental groups following the end of the 1012-1013 school year. Descriptive statistics such as frequency, mean, median and mode are provided to the researcher. The difference between means of the two groups will be indicated by a t-test conducted by this researcher.

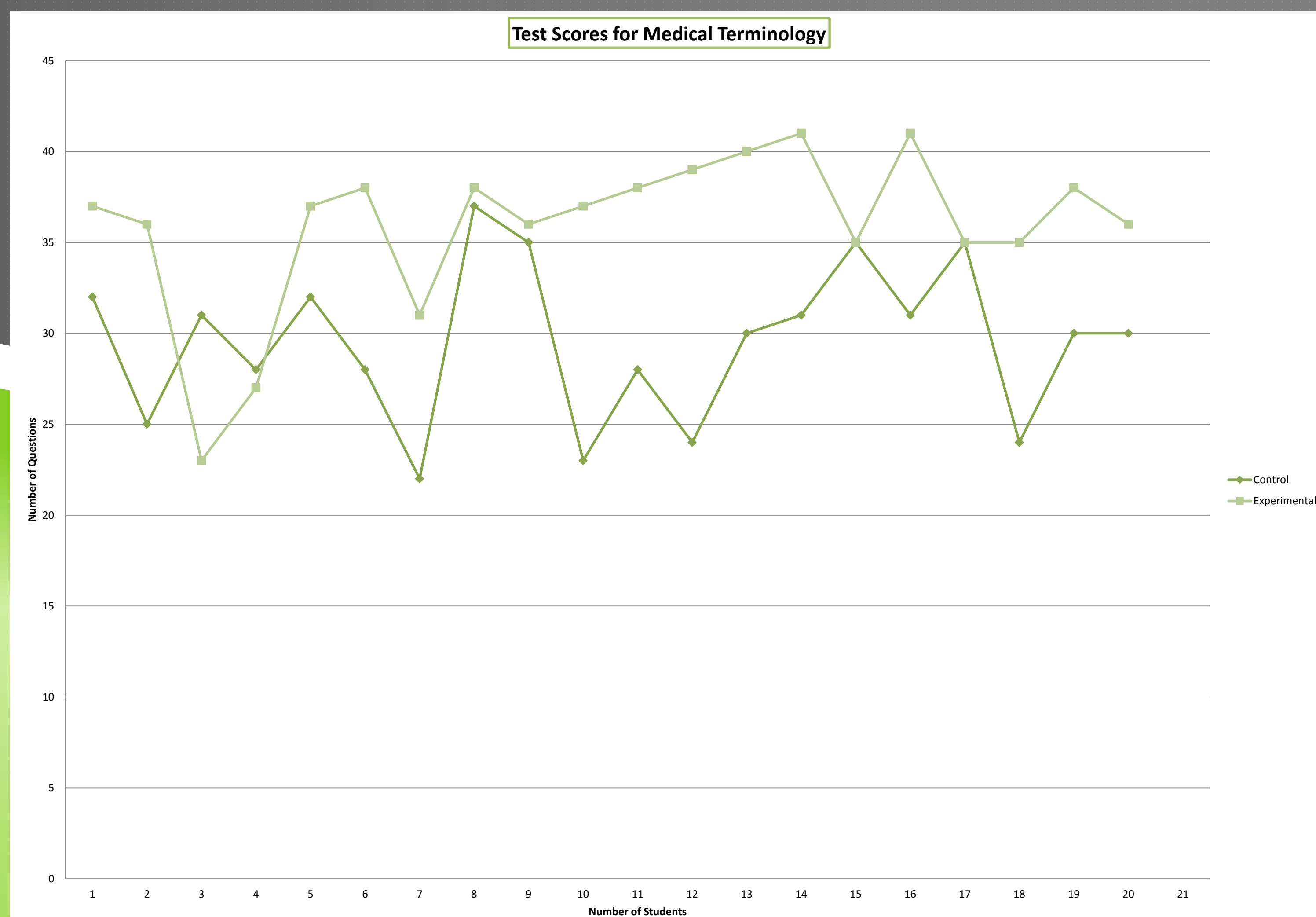
Statistics			
		without	with
N	Valid	20	20
	Missing	20	20
Mean		30.05	35.90
Median		30.50	37.00
Mode		28 ^a	38
Std. Deviation		4.211	4.424
Variance		17.734	19.568
Skewness		-.368	-1.734
Std. Error of Skewness		.512	.512
Range		15	18

a. Multiple modes exist. The smallest value is shown

Frequencies

T-Test Group Statistics				
	Class A or B	N	Mean	Std. Deviation
Number correct	without	20	30.05	4.211
	with	20	35.90	4.424
				Std. Error Mean
				.942
				.989

Independent Samples Test										
		Levene's Test for Equality of Variances		t-test for Equality of Means						
		F	Sig.	t	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference	95% Confidence Interval of the Difference	
									Lower	Upper
Number correct	Equal variances assumed	.112	.739	1.4	38	.000	-5.850	1.366	-8.615	-3.085
	Equal variances not assumed			1.4	37.908	.000	-5.850	1.366	-8.615	-3.085



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